

WSF 2017 Annual Report # 4133

PROJECT: Aerial Electromagnetic Survey of the Bazile Groundwater Management Area –WSF Application #4133 (awarded April 2016)

DATE: APRIL 1, 2017
(FIRST ANNUAL REPORT DUE ON OR BEFORE APRIL 1, 2017)

See Application 4133 Section D #2 For Project Scope Summary and Timeline

PROJECT PROGRESS APRIL 2016 TO APRIL 2017:

- The Bazile Groundwater Management Area (BGMA) Airborne Electromagnetic Survey (AEM) flights were flown between July 22, 2016 and July 25, 2016. Aqua-geo Frameworks LLC (AGF) conducted the AEM flights (approximately 644 linear miles) and associated preliminary quality control data inversions on behalf of UENRD in accordance with their subcontractor agreement with UENRD dated April 15, 2016. Flight line refinement activities were conducted in April through June 2016. Additionally, AGF was able to get a better than anticipated per line mile rate for the flights allowing the district to fly additional miles. The preliminary image file deliverables for each flight line summarizing the initial AEM survey results were provided by AGF on July 26, 2016. The final BGMA AEM Report from AGF was provided to UENRD, ahead of schedule, on January 10, 2017. The final report summarized the AEM survey results, incorporated the results with existing cross section and Conservation and Survey Division (CSD) test-hole data, GIS spatial data, and NDNR registered well data and included finalized hydrogeologic framework segment images and datasets for the transects and 3-D block area views.

ANTICIPATED ACTIVITIES FROM NOW UNTIL NEXT ANNUAL REPORT DUE APRIL 1, 2018:

- DISSEMINATE REPORT RESULTS AND USE REPORT FINDINGS TO LOCATE NEW MONITORING WELLS, RECHARGE MONITORING, TEST HOLES, AND REFINE MANAGEMENT ACTIVITIES BASED ON NEW UNDERSTANDING OF AQUIFERS

ANTICIPATED CASH FLOW FOR REMAINDER OF THE PROJECT:

- FINAL INVOICE FROM AGF TO BE DETERMINED

LIKELIHOOD THAT BENEFITS PROJECTED IN APPLICATION 4133 WILL BE REALIZED:

- Based on the results provided by AGF in January 2017, the project is on target for achieving the benefits to the UENRD as described in the application. This data will help to inform management decisions based on the variable underlying geography of various regions of the BGMA to help alleviate the trend on increasing nitrates, and speed groundwater quality recovery using data based management to target areas of particular sensitivity and concern.